

news letter

Bureau of Agricultural Chemistry
and Engineering of the
U. S. Department of Agriculture.

Issued monthly by the
Bureau of Agricultural Chemistry
and Engineering of the
U. S. Department of Agriculture.
Not for publication



Vol. 1.

August, 1939

No. 2.

S. H. McCrory, Assistant Chief of the Bureau, left Washington August 2 for an extensive field inspection trip. His first stop was at Ames, Ia., where he looked over the experiments being conducted by the divisions of Mechanical Farm Equipment Research and Farm Structures Research. From there he went to Logan, Utah, where he inspected the weed control experiments being conducted by E. M. Dieffenbach. At Corvallis, Ore., he conferred with W.M. Hurst regarding the flax machinery project. He next attended a meeting of the California State Resources Committee at San Francisco as a representative of the Biological Survey.

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REGIONAL RESEARCH LABORATORIES

Dr. David F. Smith, who was Professor of Chemistry at the University of Buffalo, began work on July 17 as head of the project on agricultural motor fuels of the Northern laboratory. His investigations will be on research intended to develop methods of producing gaseous, liquid, and solid motor fuels from agricultural materials.

Doctor Smith is a graduate of the California Institute of Technology and holds a Ph. D. degree from that institution. He is a chemist of wide experience in industrial research problems as well as in more fundamental aspects of chemical investigation, and has studied in a number of European countries. Up to 1926 he taught and conducted research in chemistry at the California Institute of Technology and the University of California. He then was chief of the physical chemistry section of the Bureau of Mines for four years and did pioneer work in the study of possibilities of utilizing coal as fuel for internal combustion engines. After two years as director of research for a large manufacturing corporation, he joined the faculty of the University of Buffalo and in addition to his work there has acted as consulting chemist for an electrochemical company and a manufacturer of industrial organic chemical compounds.

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Joseph H. Shollenberger, senior agricultural economist of the Agricultural Adjustment Administration, has been appointed principal agricultural technologist to head the commodity development division of the Northern Laboratory at Peoria, Ill.

Mr. Shollenberger will work to develop cooperation with the various bureaus of the Department and the State agricultural experiment stations with relation to the effect of environmental and varietal differences in corn and wheat on their industrial utilization. He also will study economic factors in the utilization of products developed by the Laboratory.

A graduate of Pennsylvania State College, Mr. Shollenberger has had much experience in grain standardization and milling and baking tests since he came to the Department of Agriculture in 1914. He has made wheat quality and utilization surveys in Europe and recently spent two years as grain standardization expert for the Argentine Government.

Dr. Elbert C. Lathrop has been appointed to head the work on the industrial utilization of agricultural wastes at the Northern Laboratory. This work is intended to develop new and improved methods for the production of cellulose products from such materials as stalks, straw, hulls, and cobs.

A graduate of DePauw University and with a Ph.D. degree from American University, Dr. Lathrop did research in chemistry in the Department of Agriculture for many years and carried on investigations for several large industrial concerns. Most recently he was vice-president in charge of technical activities of a large corporation manufacturing cellulose products from farm wastes, and it is believed that this and his other experience in industry make him well fitted to carry on the Laboratory's work in this field.

Robert J. Cheatham, now in charge of the cotton utilization research activities of the Bureau of Agricultural Economics, is to head the Cotton Processing Division of the Southern Laboratory. Mr. Cheatham will direct investigations involving the processing and utilization of cotton lint, including work on developing new and improved manufacturing processes, yarns, fabrics, and other products composed wholly or in part of cotton.

A graduate of Clemson Agricultural and Mechanical College, with a degree in textile engineering, Mr. Cheatham had cotton mill experience and wide experience in teaching textile technology before coming to the Department of Agriculture in 1927 to head the technological part of its program to develop new uses for cotton. One of the first and best known products developed by Mr. Cheatham was a duplex cotton bag for the consumer packaging of fruits and vegetables. In 1933, when the Bureau of Agricultural Economics' technological work and economic work on cotton utilization were combined, he was placed in charge. He is the author of numerous articles and publications on the utilization of cotton.

Dr. David F. Smith, of the Northern Laboratory, and P. Burke Jacobs, of the Industrial Farm Products Research Division, recently made a trip to Philadelphia, New York, and Buffalo. They visited plants

and conferred with equipment manufacturers and other specialists in the field who are cooperating on the design and lay-out of equipment for the motor fuel alcohol pilot plant to be erected in the Peoria laboratory. It is planned that the process and equipment of this plant will represent the best practice of the industry and at the same time possess the greatest possible flexibility for experimental work.

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Dr. Howard D. Lightbody, principal biochemist of the Western laboratory, has been in the West this month for the purpose of gaining first-hand information on biochemical problems that may be involved in the harvesting and processing of agricultural commodities assigned for initial study in that laboratory.

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R. H. Nagel, acting director of the Western laboratory, gave a paper entitled "Development and Objectives of the Four Regional Research Laboratories" before the Western Chemical Congress in San Francisco on August 9. During the period August 13-26 he was at Camp Ord, Presidio of Monterey, Calif., on military duty.

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Dr. P.A. Wells attended the first joint meeting of the Vermont Chemurgic Council and Industrial Agricultural Products Commission of Vermont at Burlington, Vt., on July 18, and presented a brief address outlining the objectives of the Eastern Laboratory and giving an account of the progress made so far.

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Mechanical Farm Equipment Division

G. A. Cumings left Washington August 11 to inspect the fertilizer placement experiments in the Southeast. He visited the projects at Rocky Mount, N.C., Florence, Columbia, and Clemson, S.C., Griffin, Tifton, and Attapulgus, Ga., State College, Miss., Onley and Norfolk, Va., Salisbury, Md. and Bethel, Del. He conferred with the various State representatives on the future work of the projects and also with the manufacturers of fertilizer distributors located in this territory in regard to new developments on machines for applying fertilizer in approved placements.

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Frank Irons in charge of the pest control projects at Toledo, O., left August 17 for a ten days' trip to the Eastern Shore of Maryland and Virginia and to the New England States to confer with officials of the Bureau of Entomology and Plant Quarantine and others on machinery for control of the corn borer and other insect pests. He will check performance of the small dusters and sprayers developed at Toledo and used in the eastern tests most of this season.

Field tests are being run at Davis, Calif. on several different sugar-beet harvesting machines, particularly on the new variable-cut ground topper and on the revamped Scott Viner harvester. Later, the more promising machines will be tested in other beet territories.

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E. M. Mervine is spending the latter part of August at Davis, Calif., in connection with the sugar-beet harvesting equipment work.

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E. M. Dieffenbach reports that in cooperation with the Physics Department of the Utah State Agricultural College, experiments are under way toward finding the lethal effect of electricity on plant life, especially on weeds. In preliminary tests already made, it has been found that the conductivity of weed root-stalks is much higher than that of dry earth.

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Industrial Farm Products Research Division

C. E. Senseman, Acting Chief of the Division, and Dr. R.T. Milner, Acting Director of the Regional Soybean Industrial Products Laboratory, Urbana, Ill., traveled to Altoona, Pa., on July 15 to discuss with R.G. East of the Pennsylvania Railroad, the use of soybean products in the finishes being used by that company on their railway cars, and to inspect several cars.

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The S.I.P. Laboratory reports a number of recent visitors with a variety of interests:

H. T. Herrick, Assistant Chief of the Bureau, in charge of the Four Regional Laboratories, and Dr. O.E. May, Director of the Northern Regional Research Laboratory, were callers at the Laboratory on July 17.

S. H. McCrory, Assistant Chief of the Bureau, was a caller at the Laboratory on August 5. This was Mr. McCrory's first visit there and he displayed a great deal of interest in the projects and work of the Laboratory.

E. K. Nielsen, Breckenridge Farm, Hinsdale, Ill., visited the Laboratory on August 3, in regard to the manufacture of sorbose by the fermentation process.

Dr. R.E. Montonne, Prof. of Chemical Engineering, and Dr. L.H. Reyerson, Chairman of the School of Chemistry, of the University of Minnesota, were visitors at the Laboratory on July 31 and consulted with Dr. Aronovsky and the staff in regard to our nitric acid pulping work.

Dr. G.J. Hucker of the New York Agricultural Experiment Station at Geneva, N.Y., called at the Laboratory on August 3 regarding our fermentation work on the production of fuel gas from wastes.

On July 19 Max A. Bradshaw of the Chemical Engineering Research Division consulted with various members of the Laboratory staff regarding the work.

D.F.J. Lynch, Director of the Southern Regional Research Laboratory at New Orleans, La., visited the Laboratory on August 9 and 10 en route to the West.

E. D. Gordon of the Division of Mechanical Farm Equipment Research at Auburn, Ala., was an interested visitor at the Laboratory on August 10.

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A pulp and paper testing station is being assembled and installed on the east mezzanine floor of the S.I.P. Laboratory. All of the high-pressure digestion equipment is being placed in a separate room which can be closed off from the rest of the Laboratory.

Division of Farm Structures

Alfred D. Edgar has been transferred to his new headquarters at Scottsbluff, Neb., where he will conduct studies on potato storage. He will continue making occasional inspections of the potato storages near Cadillac, Mich., his former headquarters, and will continue his supervision of the potato storage work at Fargo, N.Dak.

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H. J. Barre of the Iowa Station and C.F. Kelly from the Washington office are making factory inspections of shelled corn bins, a large number of which are being purchased by the Commodity Credit Corporation. These bins are being made at a number of factories throughout the Middle West.

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J. W. Simons has been doing graduate work at the University of Georgia and recently received his M.S. degree.

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Thayer Cleaver, in charge of the grain storage studies at Urbana, Ill., and now on leave, stopped at the Washington office August 23 to discuss the conduct of the work.

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Fertilizer Research Division

Dr. Eugene H. Melvin attended the 7th Summer Conference on Spectroscopy and Its Application held at the Massachusetts Institute of Technology, Cambridge, Mass., July 16 - 20. He gave an extemporaneous talk on "A Method for the Quantitative Spectrochemical Analysis of Important Trace Elements in Mixed Fertilizers".

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Dr. W. Edwards Deming spent July 25 - 27 in New York City conferring with Dr. Walter A. Shewhart of the Bell Telephone Laboratories in regard to the publication of the lectures Dr. Shewhart gave before the U.S. Department of Agriculture Graduate School.

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Professor Richard C. Tolman of the California Institute of Technology, Pasadena, Calif., visited the Fertilizer Research Division on Thursday, August 10. Dr. Tolman was Director of the Fixed Nitrogen Research Laboratory, 1920-1922, and later served as consultant.

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Dr. W.H. Ross and A.L. Mehring called at the plant of the Standard Wholesale Phosphate and Acid Works at Curtis Bay, Baltimore, Md., on August 3.

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Food Research Division

The Seventh World Poultry Congress, held at Cleveland, Ohio, July 31 - August 5, was attended by Sam R. Hoover of this Division. Mr. Hoover presented a paper entitled "The Application of Interior Egg Quality Measurements to Practical Problems."

United States Patent 2,162,686, covering a Method for the Preparation of Thionol, was issued on June 13 to Dr. Floyd DeEds, C.W. Eddy and J.O. Thomas of this Division.

Dr. Floyd DeEds, in charge of the Pharmacological Laboratory of the Food Research Division at Stanford University Medical School, attended a meeting of the National Association of Coroners at San Francisco, on August 2 - 3, presenting a paper on the "Acute Versus Chronic Poisoning - Significance to the Coroner".

Dr. F.C. Blanck visited the Deerfield Packing Corporation at Bridgeton, N.J., August 3, to observe operations in their freezing plant.

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Rural Electrification Research Division

Harry L. Garver has just returned from a two-weeks' trip to Georgia, North Carolina and South Carolina. He gave a paper on the Use of Electricity in the Production of Quality Milk on the rural electrification day program of the Farm and Homemakers week at the University of Georgia. He inspected several farms of the States mentioned, accompanied by State specialists. He visited also Clemson College and the Agricultural College of the University of North Carolina.

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Chemical Engineering Research Division

Dr. David J. Price participated in the program of the Northwest Educational Conference held at Spokane, Wash., July 18-21 under the auspices of the Washington State Fire Chiefs' Association. He delivered a number of lectures on the relation of explosion and fire prevention research work to the fire service. There were approximately 800 representatives from the Pacific Northwest states present at this conference. Conferences were held in Seattle with Washington State officials, representatives of the Washington State Surveying and Rating Bureau and var-

ious insurance organizations and industrial companies relative to explosion and fire prevention matters in the Pacific Northwest. In Portland, Ore., Dr. Price gave a series of lectures before the Portland Fire College and before the Building Supervision and Maintenance Fire Protection school. The enrollment at this school was approximately 700. Dr. Price discussed recent developments in the work of the Bureau in connection with studies of explosions and fires in industrial plants, school buildings, and other public institutions.

The entire trip to the Pacific Coast was made by air travel, enabling Dr. Price to spend 6 days on the Coast with only a week's absence from the office. He reports that from the standpoint of comfort there is no difference between air travel and rail for long distances.

Hylton R. Brown and Byron J. Culp went to Baltimore on August 15 at the request of the officials of the Crown Cork and Seal Co. to investigate the results of an explosion of cork dust which occurred at their plant on August 8. Conferences were held with plant engineers regarding the rearrangement of machinery to reduce the explosion hazard.

On August 16 Dr. Price addressed the Central Penna. District Volunteer Firemen's Association annual convention at Houtzdale, Pa. Representatives from 10 central Pennsylvania counties were present at the meeting. The Department's sound film, "Dangerous Dusts," was also shown in connection with the meeting. Dr. Price also attended the banquet of the Association in the evening and was on the program with Congressman James Van Zandt of the 23rd Pennsylvania Congressional District.

R. L. Hanson, R.M. Baker and members of the Chemical Engineering Research Drafting Section cooperated with the Regional Laboratory Staff and the Division of Plans and Service in perfecting plans for the construction work now in progress and also for the design and specification work on the industrial laboratory or pilot plant wing for all four regional laboratories.

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Mechanical Processing of Farm Products Research

Cotton Ginning Investigations:

The reginning installation in the Cotton Ginning Laboratories is now shaping up for the handling of mechanically-harvested and other types of rough cottons. Work is also progressing on the construction of the double-process gin for ginning and reginning at one passage through the machine.

Acreage in Sea Island cotton is increasing in Louisiana and Mississippi with the result that both growers and ginneries are coming to the Laboratories for suggestions in regard to roller gins.

On July 26 Messrs. Holbrook, Young, French, and Bradshaw from the Kendall Mills at Walpole, Mass., visited the Cotton Ginning Laboratories and conferred with the engineers and technologists on means for improving cotton ginning.

On August 3 a party of approximately 50 agronomists from southern cotton-growing States visited the Laboratories and made a tour of the Delta Branch Experiment Station and the farms of seed breeders in the vicinity.

On the morning of August 3 from Station WMC at Memphis and on the morning of August 5 from Station WWL at New Orleans Chas. A. Bennett participated in conversational broadcasts with the Agricultural Directors of those stations upon the subject of getting the cotton gins ready for the coming season. Much assistance in the preparation of the papers and in the mimeographing of their contents was rendered by the Agricultural Marketing Service at Memphis and New Orleans.

Jorge L. Solá, delegate of the Argentine Cotton Board, concluded a 10-day visit at Stoneville on August 3. Mr. Solá has been studying economic aspects of the cotton program during his visit to different parts of the South. The Cotton Board of Argentina has translated a number of the Department bulletins on cotton ginning into Spanish and distributed copies.

T. L. Baggette visited Covington, Tenn. on August 4 to outline pioneer installations of combination drying and cleaning apparatus in that region. Very few cotton driers have been installed in Tennessee, but through the efforts of County Agent Wayne McGowan and State Cotton Ginning Specialist G.E. Martin, there appears to be considerable interest and promises of installations for the coming season.

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Cotton Packing Investigations:

Preliminary miniature cotton bales having density of 35 pounds or more per cubic foot have been produced in the first test runs on the pilot press in the studies on uniform and high density packing of cotton at gins. A special banding and fastening machine has been obtained at low cost from a steel manufacturer for tying these small specimen bales.

Arrangements are now being made in the apparatus of the pressing laboratory for handling a quantity of Sea Island cotton through the conditioning and extracting machinery of the 3-80 outfit to further roller ginning studies in connection with pressing.

Jesse E. Harmond, Assistant Mechanical Engineer, and C.D. Kellenberger, Junior Mechanical Engineer, are expected to report on or about August 10 for duty on the scientific staff of the packing project.

A number of sensitive and important instruments in the cotton pressing work are now being received. Among them are special wattmeters, recording thermometers, and an oscillograph.

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Farm Operating Efficiency

A progress report on farm operating efficiency investigations in Virginia from 1931 to 1938, prepared by A.T. Holman of this Bureau and J.L. Maxton and G.D. Kite of Virginia Polytechnic Institute, has been submitted for publication.

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Changes in Personnel

Recent Appointments (Indefinite or Probationary)

Thomas W. Brawner	Agent (FC) (College Park, Md.)	Structures
Robert Wm. Whitaker	Agent (Urbana, Ill.)	"
John C. Lawler, Jr.	Under Scientific Helper (Urbana, Ill.)	Ind. Farm Prods. Res.
Mrs. Mary P. Sunderland	Jr. Clerk-Stenographer	" " " "
Thomas O. Cannon	Cons. Engineer (Peoria, Ill.)	Northern Reg. Res. Lab.
Frank Marion Keller	Sr. Cons. Engineer (Albany, Calif.)	Western Reg. Res. Lab.
Paul R. Dawson	Sr. Chemist (New Orleans, La.)	Southern Reg. Res. Lab.
Maxine M. Galbraith	Jr. Clerk-Stenog. (San Francisco, Calif.)	Food Research Div.
Harold J. Loeffler	Collaborator (Los Angeles, Calif.)	" " "
Grace L. Snodgras	Asst. Clerk-Stenographer	Allergen Investigations.
Martin Glaberman	Asst. Messenger	Business Admin.

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Recent Appointments (Temporary)

Sylvia Raine	Senior Stenographer	Business Admin.
Mrs. Lorraine B. Hobday	Junior Stenographer	Plans & Service
Lillian Miriam Goodman	Junior Stenographer	" "
Marie C. Caponnetto	Junior Stenographer	" "
Lois T. Bruce	Junior Stenographer	" "
Sylvia L. Blankin	Junior Clerk-Typist	Naval Stores Research
Wilson P. Greene	Asst. Mech. Engr. (Arlington, Va.)	Structures
Knox Vaughn	Under Agr. Aid (Laurel, Miss.)	Mechanical Equipment
Scott Anderson	Under Scientific Helper (Urbana, Ill.)	Ind. Farm Prods. Res.
Gaylon C. Williamson	Junior Laborer (Urbana, Ill.)	" " " "

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Separations

William S. Giddings	Skilled Laborer (Geneva, N.Y.)	Food Research Division
Marland W. Duvall	Agent (Arlington, Va.)	Structures
Ruth B. Lupton	Junior Stenographer	"
John B. Willis	Agent (Arlington, Va.)	"
Melvin Patrick Hemmer	Asst. Mechan. Engineer	Plans & Service
Elgin O. Marshall	"	"
Edward Hunter Long	"	"
Evert R. Chapman	Sr. Mechan. Draftsman (Resigned)	"
Edward S. Marks	Jr. Laboratory Mechanic	"
	(Arlington, Va.) (Resigned)	Ind. Farm Prods. Res.
Geo. P. Ogg	Engineering Draftsman (Resigned)	Chem. Engr. Res.
Clifford H. Billett	Junior Clerk (Stoneville, Miss.)	Cotton Ginning Invs.
Samuel George King	Electrician (Stoneville, Miss.)	" " "